

ABSTRACT

A first pump (1) of small capacity and a second pump (2) of large capacity are connected directly with each other and are driven by a variable-speed motor (3) the rotational speed of which is controlled by a control device (4). In a first mode, a first discharge line (5) of the first pump and a second discharge line (8) of the second pump are disconnected with each other, making the first pump (1) unloaded, in which state a constant-horsepower operation is performed, where the discharge fluid is brought into a high pressure by relatively small torque. In a second mode, the first discharge line (5) and the second discharge line (8) are connected with each other by a switching valve (6), in which state a constant-horsepower operation is performed, where a high flow rate of discharge fluid is discharged at relatively low rotational speed.